We Claim:

1. An isolated *dwf7* polynucleotide that imparts at least one *dwf7* mutant phenotype when expressed in a plant, said polynucleotide selected from the group consisting of (a) a polynucleotide comprising the nucleotide sequence depicted at positions 143 to 322, inclusive, of Figures 8A-8D; (b) a polynucleotide comprising the nucleotide sequence depicted at positions 143 to 1552, inclusive, of Figures 8A-8D; (c) a polynucleotide comprising a nucleotide sequence having at least 70% identity to the nucleotide sequence of (a) or (b); (d) a fragment of (a), (b) or (c) comprising at least 15 contiguous nucleotides; and (e) complements of (a), (b), (c), (d) or (e).

2. The isolated *dwf7* polynucleotide of claim 1, wherein said polynucleotide comprises the nucleotide sequence depicted at positions 143 to 322, inclusive, of Figures 8A-8D or the complement thereof.

3. The isolated *dwf7* polynucleotide of claim 1, wherein said polynucleotide comprises the nucleotide sequence depicted at positions 143 to 1552, inclusive, of Figures 8A-8D or the complement thereof.

4. The isolated *dwf7* polynucleotide of claim 1, wherein said polynucleotide consists of the nucleotide sequence depicted at positions 143 to 322, inclusive, of Figures 8A-8D or the complement thereof.

5. The isolated *dwf7* mutant polynucleotide of claim 1, wherein said polynucleotide consists of the nucleotide sequence depicted at positions 143 to 1552, inclusive, of Figures 8A-8D or the complement thereof.

6. An isolated *dwf7* polynucleotide that imparts at least one *dwf7* mutant phenotype when expressed in a plant, said polynucleotide selected from the group consisting of (a) a polynucleotide comprising the nucleotide sequence depicted at

positions 1506 to 2720, inclusive, of Figures 10A-10F; (b) a polynucleotide comprising a nucleotide sequence having at least 70% identity to the nucleotide sequence of (b); (c) a fragment of (a) or (b) comprising at least 15 contiguous nucleotides; and (d) complements of (a), (b), (c) or (d).

7. The isolated *dwf7* polynucleotide of claim 6, wherein said polynucleotide consists of the nucleotide sequence depicted at positions 1506 to 2720, inclusive, of Figures 10A-10F or the complement thereof.

8. A recombinant vector comprising:

(a) the isolated *dwf7* polynucleotide of claim 1; and

(b) control elements that are operably linked to said polynucleotide whereby a coding sequence within said polynucleotide can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

9. A recombinant vector comprising:

(a) the isolated *dwf7* polynucleotide of claim 6; and

(b) control elements that are operably linked to said polynucleotide whereby a coding sequence within said polynucleotide can be transcribed and translated in a host cell, and at least one of said control elements is heterologous to said coding sequence.

10. A host cell transformed with the recombinant vector of claim 8.

11. A host cell transformed with the recombinant vector of claim 9.

12. A method of producing a DWF7 polypeptide comprising:

(a) providing a population of host cells according to claim 10; and

(b) culturing said population of cells under conditions whereby the DWF7 polypeptide encoded by the coding sequence present in said recombinant vector is expressed.

13. A method of producing a DWF7 polypeptide comprising:

(a) providing a population of host cells according to claim 11; and

(b) culturing said population of cells under conditions whereby the DWF7 polypeptide encoded by the coding sequence present in said recombinant vector is expressed.

14. A transgenic plant comprising the polynucleotide of claim 1.

15. A transgenic plant comprising the polynucleotide of claim 6.

16. A method of producing a transgenic plant comprising the steps of:

(a) introducing the polynucleotide of claim 1 into a plant cell to produce a transformed plant cell; and

(b) producing a transgenic plant from the transformed plant cell.

17. A method of producing a transgenic plant comprising the steps of:

(a) introducing the polynucleotide of claim 6 into a plant cell to produce a transformed plant cell; and

(b) producing a transgenic plant from the transformed plant cell.

18. A method for altering the sterol composition of a plant relative to the wild-type plant comprising:

(a) introducing the polynucleotide of claim 1 into a plant cell to produce a transformed plant cell; and

(b) producing a transgenic plant from the transformed plant cell, said transgenic plant having an altered sterol composition relative to the wild-type plant.

19. A method for altering the sterol composition of a plant relative to the wild-type plant comprising:

(a) introducing the polynucleotide of claim 6 into a plant cell to produce a

transformed plant cell; and

(b) producing a transgenic plant from the transformed plant cell, said transgenic plant having an altered sterol composition relative to the wild-type plant.

20. The method of claim 18, wherein the transgenic plant has less cholesterol relative to the wild-type plant.

21. The method of claim 19, wherein the transgenic plant has less cholesterol relative to the wild-type plant.

22. The method of claim 18, wherein the transgenic plant has increased sterol production relative to the wild-type plant.

23. The method of claim 19, wherein the transgenic plant has increased sterol production relative to the wild-type plant.

24. An isolated DWF7 polypeptide encoded by the polynucleotide of claim 1.

25. The isolated DWF7 polypeptide of claim 24, wherein said polypeptide consists of the amino acid sequence depicted at positions 1-60, inclusive, of Figure 9.

26. The isolated DWF7 polypeptide of claim 24, wherein said polypeptide consists of the amino acid sequence depicted at positions 1-230, inclusive, of Figure 9.

27. An isolated DWF7 polypeptide encoded by the polynucleotide of claim 6.

28. The isolated DWF7 polypeptide of claim 27 wherein said polypeptide consists of the amino acid sequence depicted at positions 1-279, inclusive, of Figure 11.

29. An isolated control element having at least 70% identity to a control element

found within nucleotide positions 43-142 of Figures 8A-8D.

30. A recombinant vector comprising:

(a) the isolated control element of claim 29; and

(b) a polynucleotide comprising a coding sequence which is heterologous to said control element.

31. An isolated control element having at least 70% identity to a control element found within nucleotide positions 1-1505 of Figures 10A-10F.

32. A host cell transformed with the recombinant vector of claim 30.

33. A host cell transformed with the recombinant vector of claim 31.

34. A method of producing a recombinant polypeptide comprising:

(a) providing a population of host cells according to claim 32; and

(b) culturing said population of cells under conditions whereby the recombinant polypeptide encoded by the coding sequence present in said recombinant vector is expressed.

35. A method of producing a recombinant polypeptide comprising:

(a) providing a population of host cells according to claim 33; and

(b) culturing said population of cells under conditions whereby the recombinant polypeptide encoded by the coding sequence present in said recombinant vector is expressed.